



**6560-50-P**

## **ENVIRONMENTAL PROTECTION AGENCY**

### **40 CFR Part 1043**

**[EPA-HQ-OAR-2011-0928; FRL-9618-9]**

**RIN 2060-XXXX**

### **Great Lakes Steamship Repower Incentive Program**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Direct final rule.

**SUMMARY:** EPA is taking direct final action to simplify an existing provision in our marine diesel engine program that is intended to encourage owners of Great Lakes steamships to repower those steamships with cleaner marine diesel engines. The simplified program will automatically permit the use of residual fuel, through December 31, 2025, in a steamship if it has been repowered with a certified Tier 2 or later marine diesel engine, provided the steamship was operated exclusively on the Great Lakes and was in service on October 30, 2009.

Steamships are powered by old, inefficient steam boilers. Voluntary replacement of these boilers with modern fuel-efficient marine diesel engines will result in reductions of particulate matter and sulfur oxides, even while the replacement diesel engines are operated on higher sulfur residual fuel, and will provide human health and welfare benefits for the people who live in the Great Lakes region. Conversion to new diesel engines will also result in considerable carbon dioxide reductions and fuel savings.

**DATES:** This rule is effective on [\[Insert date 60 days from date of publication in the Federal Register\]](#) without further notice, unless EPA receives adverse comment by [\[Insert date 30 days after publication in the Federal Register\]](#). If EPA receives adverse comment, we will publish a timely withdrawal in the Federal Register informing the public that the rule will not take effect.

**ADDRESSES:** Submit your comments, identified by Docket ID No.

EPA-HQ-OAR-2011-0928, by one of the following methods:

- [www.regulations.gov](http://www.regulations.gov): Follow the on-line instructions for submitting comments.
- Email: [a-and-r-docket@epa.gov](mailto:a-and-r-docket@epa.gov)
- Fax: (202) 566-9744
- Mail: Environmental Protection Agency, Air Docket, Mail-code 6102T, 1200 Pennsylvania Ave., NW, Washington, DC 20460.
- Hand Delivery: EPA Docket Center (EPA/DC), EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC, Attention Docket No. EPA-HQ- OAR-2010-0928. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

*Instructions:* Direct your comments to Docket ID No. EPA-HQ-OAR-2011-0928.

EPA's policy is that all comments received will be included in the public docket without change and may be made available online at [www.regulations.gov](http://www.regulations.gov), including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other

information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through [www.regulations.gov](http://www.regulations.gov) or e-mail. The [www.regulations.gov](http://www.regulations.gov) website is an “anonymous access” system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through [www.regulations.gov](http://www.regulations.gov) your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA’s public docket visit the EPA Docket Center homepage at <http://www.epa.gov/epahome/dockets.htm>. For additional instructions on submitting comments, go to Unit III of the **SUPPLEMENTARY INFORMATION** section of this document.

*Docket:* All documents in the docket are listed in the [www.regulations.gov](http://www.regulations.gov) index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in

[www.regulations.gov](http://www.regulations.gov) or in hard copy at the “Great Lakes Steamship Repower Incentive Program” Docket, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the “Great Lakes Steamship Repower Incentive Program” Docket is (202) 566-1742.

**FOR FURTHER INFORMATION CONTACT:** Jean Marie Revelt, Environmental Protection Agency, Office of Transportation and Air Quality, Assessment and Standards Division, 2000 Traverwood Drive, Ann Arbor, Michigan 48105; telephone number: 734-214-4822; fax number: 734-214-4816; email address: revelt.jean-marie@epa.gov.

## **SUPPLEMENTARY INFORMATION**

### **I. Why is EPA Using a Direct Final Rule?**

EPA is publishing this rule without a prior proposed rule because we view this as a noncontroversial action and anticipate no adverse comment. However, in the “Proposed Rules” section of today’s Federal Register, we are publishing a separate document that will serve as the proposed rule to adopt the provisions in this Direct Final Rule if adverse comments are received on this direct final rule. We will not institute a second comment period on this action. Any parties interested in

commenting must do so at this time. For further information about commenting on this rule, see the **ADDRESSES** section of this document.

If EPA receives adverse comment, we will publish a timely withdrawal in the Federal Register informing the public that this direct final rule will not take effect.

We would address all public comments in any subsequent final rule based on the proposed rule.

## **II. Does This Action Apply to Me?**

This action will affect companies that own steamships operating exclusively on the Great Lakes that were in service on October 30, 2009. The following table gives some examples of entities that may be affected by this rule; however, since these are only examples, you should carefully examine the regulations. You may direct questions regarding the applicability of this action as noted in **FOR FURTHER INFORMATION CONTACT**.

Category	NAICS codes <sup>a</sup>	Examples of potentially regulated entities
Industry	483113	Coastal and Great Lakes Freight Transportation
Industry	483114	Coastal and Great Lakes Passenger Transportation
Industry	336611	Ship building and repairing
Industry	811310	Engine repair, remanufacture, and maintenance

<sup>a</sup>North American Industry Classification System (NAICS).

### **III. What Should I Consider as I Prepare My Comments for EPA?**

A. *Submitting CBI.* Do not submit this information to EPA through [www.regulations.gov](http://www.regulations.gov) or e-mail. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD ROM that you mail to EPA, mark the outside of the disk or CD ROM as CBI and then identify electronically within the disk or CD ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

B. *Tips for Preparing Your Comments.* When submitting comments, remember to:

- Identify the rulemaking by docket number and other identifying information

(subject heading, Federal Register date and page number).

- Follow directions - The agency may ask you to respond to specific questions or organize comments by referencing a Code of Federal Regulations (CFR) part or section number.
- Explain why you agree or disagree; suggest alternatives and substitute language for your requested changes.
- Describe any assumptions and provide any technical information and/or data that you used.
- If you estimate potential costs or burdens, explain how you arrived at your estimate in sufficient detail to allow for it to be reproduced.
- Provide specific examples to illustrate your concerns, and suggest alternatives.
- Explain your views as clearly as possible, avoiding the use of profanity or personal threats.
- Make sure to submit your comments by the comment period deadline identified.

#### **IV. Summary of Rule**

##### **A. Overview**

EPA's final rule for Category 3 marine engines<sup>1</sup> and their fuels (75 FR 22896, April 30, 2010) exempted steamships from the sulfur limits that apply to fuel

used in ships operating on the Great Lakes<sup>2</sup> beginning August 1, 2012 (40 CFR 1043.95(a)). This means steamships can continue to operate indefinitely on high sulfur residual fuel. However, because steamship engines have high emissions and low fuel efficiency, we included a provision to encourage owners of Great Lakes steamships to voluntarily replace their steam boilers with cleaner, more fuel-efficient marine diesel engines (40 CFR 1043.95(b)(4)(iv)). The current voluntary repower incentive is in the form of relief through EPA's economic hardship program, through which an owner may apply for a relaxation of the Great Lakes fuel sulfur limits for fuel used by the repowered diesel ship, for a defined period of time. The use of lower price, higher sulfur residual fuel can help offset vessel repower costs.

EPA believes that the goal of repowering the fleet of Great Lakes steamships will be achieved more effectively by adding a new incentive program to provide an automatic, time-limited fuel waiver for repowered steamships. Instead of applying for relief through the economic hardship program, Great Lakes steamship owners who voluntarily repower their steamships with diesel engines would automatically qualify for a waiver that will allow the use of residual fuel in the replacement diesel engines that exceeds the global and ECA sulfur limits that otherwise apply to the fuel used in marine diesel engines operated on the U. S. portions of the Great Lakes. This automatic Great Lakes steamship repower fuel waiver will be valid through December 31, 2025; after that date, repowered steamships will be required to comply with the Great Lakes ECA fuel sulfur limits

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<sup>1</sup> Category 3 marine engines are diesel engines with per cylinder displacement at or above 30 liters.

<sup>2</sup> For the purpose of this program, "Great Lakes" means all the streams, rivers, lakes, and other bodies of water that are



for diesel engines.<sup>3</sup> To qualify for this automatic fuel sulfur waiver, the steamship must be exempt from existing requirements pursuant to 40 CFR 1043.95(a) in that it must operate exclusively on the Great Lakes and must have been in service on October 30, 2009. In addition, the replacement engine must be a Tier 2 or cleaner marine diesel engine as specified in 40 CFR 1042.104.

Voluntary replacement of steam engines with cleaner, more efficient Tier 2 or better marine diesel engines through this modification to our steamship repower incentive program will provide important air quality and energy benefits immediately, due to the improved fuel efficiency of the diesel engines, and even larger benefits in the long term, when the repowered ships will use fuel that complies with the 1,000 ppm sulfur limit on the Great Lakes.

## B. Background

The Great Lakes and St. Lawrence Seaway are the longest deep draft navigation system in the world. About 160 million tons of cargo is moved each year through the 110 ports located on this 2,300 mile system, which extends from the Gulf of St. Lawrence to the western shores of Lake Superior. According to a recent study, this transportation system generated nearly 93,000 directly-related jobs and 134,000 indirect jobs in the U.S. and Canada in 2010, providing about

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within the drainage basin of the St. Lawrence River, west of Anticosti Island. (40 CFR 1043.20).

<sup>3</sup> Compliance can be through switching to ECA-compliant fuel or through the installation and use of an exhaust gas cleaning system (scrubber) or other technology or procedure that achieves equivalent sulfur emissions. See Section V.C of the preamble for our Category 3 FRM for a discussion of compliance strategies.

\$34.5 billion in business revenue.<sup>4</sup>

The U.S. Great Lakes fleet consists of 57 vessels that carry about 65 percent of Great Lakes cargo.<sup>5</sup> This fleet is “captive,” meaning that many of these ships operate solely on the Great Lakes. For some ships, this is because they are too large to pass through the Welland Canal to the St. Lawrence Seaway; others service only Great Lakes ports. Operation in fresh water minimizes hull corrosion and therefore these captive cargo ships remain in service for a long time. The average age of the fleet of all U.S. cargo vessels operating on the Great Lakes today is about 44 years. The Canadian fleet of 96 ships carries about 25 percent of Great Lakes cargo. This fleet is different from the U.S. fleet in that the ships are younger, on average 35 years, tend to be smaller, and are more likely to operate in the brackish water of the lower end of the St. Lawrence Seaway, the Gulf of St. Lawrence, and the Atlantic Ocean. The remaining Great Lakes cargo is carried by foreign ocean-ships operating on the system temporarily.

Steamships are the oldest segment of the Great Lakes fleet. There are thirteen U.S. steamships operating on the Great Lakes; twelve of these have boilers burning residual fuel oil and the thirteenth operates on coal. The average age of these steamships is about 58 years, the youngest being built in 1960 and the oldest in 1942. The average age of the smaller fleet of 6 Canadian steamships is 57 years, with the youngest built in 1967. Because they operate primarily in

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<sup>4</sup> The Economic Impacts of the Great Lakes-St. Lawrence Seaway System. Martin Associates. October 18, 2011. A copy of this report can be found at <http://www.marinedelivers.com/economy>

<sup>5</sup> Data in this section derived from Greenwoods Guide to Great Lakes Shipping 2010 (Harbor House Publishing, 2010), Lake Carriers’ Association, the Canadian Shipowners Association, and the St. Lawrence Seaway Management Corporation. See <http://www.lcships.com/TONPAGE.HTM>, <http://www.shipowners.ca/index.php?page=annual-report-and-statistics>, and <http://www.seaway.ca/en/seaway/facts/traffic/index.html>

fresh water, the U.S. steamships do not experience the corrosion of saltwater and are expected to remain in operation for several more decades.

Steamships remaining in operation today, on both the Great Lakes and the ocean, are part of a legacy fleet that uses technology originally developed before the diesel engine became the dominant ship propulsion method worldwide. In steam technology engines, residual fuel or coal is burned to heat water in a boiler; the resulting steam is converted into energy to rotate the ship's main propellers. Steam engines are less efficient than internal combustion engines and can use 30 to 50 percent more fuel than a diesel engine. This translates to high sulfur oxide (SO<sub>x</sub>) and particulate matter (PM) emissions. As discussed in our Category 3 marine rule, these emissions have important impacts on human health and the environment.

Steamships that operate in salt water are retired from service as a result of hull corrosion, and much of today's fleet of ocean steamships is expected to be retired by 2020. Owners choose diesel engines for the replacement vessels because of their better fuel efficiency and performance characteristics; diesel engines have lower SO<sub>x</sub> and PM emissions as well. Increasing fuel prices have led some Great Lakes steamship owners to carry out repower projects to replace their inefficient steam engines with cleaner fuel-efficient diesel engines. This type of vessel modification can be expensive, with costs of \$15 to \$25 million or more (20 to 25 percent of the cost of a new vessel), because the steam engine is an integral part of the vessel and the hull must be cut away to remove it. Repowering also requires extensive engine room and propeller modifications. However, the

fuel savings associated with a 30 percent improvement in fuel efficiency combined with the long service life of Great Lakes ships helps the owner recover these costs. The fuel savings can make repowering attractive to owners on a long-term basis, and several Great Lakes steamships were repowered in the last decade, including the Paul R. Tregurtha, the Charles M. Beeghly (now the James L. Oberstar), the Michipicoten, and the Saginaw. This dynamic was changed, however, with the designation of the North American Emission Control Area (ECA) and the application of the stringent ECA fuel sulfur limits to the Great Lakes through our Category 3 marine rule. As explained below, ECA-compliant fuel is expected to be higher price distillate fuel, and steamship owners may not be able to recover the cost of a repower even with the better fuel efficiency of diesel engines compared to steam engines. As a result, the incentives for repowering any one of the thirteen remaining steamships became less compelling.

### C. EPA's Coordinated Strategy for Ships and Steamship Repowers

In our 2010 Category 3 marine rulemaking, EPA adopted a Coordinated Strategy for ships that will reduce emissions from all foreign and domestic vessels that affect U.S. air quality. The Coordinated Strategy applies to all ships that operate in the United States, including those that operate on the U.S. portions of the Great Lakes and St. Lawrence Seaway. The Coordinated Strategy consists of three parts:

- (i) Addition of new tiers of Clean Air Act (CAA) emission standards that

apply to Category 3 marine engines installed on U.S. vessels, and certain compliance requirements that are consistent with our regulatory program for Category 1 and Category 2 marine engines;

(ii) Designation of U.S. coastal waters as an Emission Control Area (ECA) through amendment to Annex VI of the International Convention for the Prevention of Pollution from Ships (MARPOL Annex VI); ships operating in a designated ECA are required to meet the most stringent engine and marine fuel sulfur requirements contained in MARPOL Annex VI; and

(iii) Adoption of the engine emission and fuel sulfur limits contained in the amendments to MARPOL Annex VI that are applicable to all vessels regardless of flag and implementation of those requirements in the U.S. through the Act to Prevent Pollution from Ships (APPS) and regulations issued under APPS.

The North American ECA was designated through amendment to MARPOL Annex VI that was adopted by the Parties to Annex VI in March 2010.<sup>6</sup> A fuel sulfur limit of 10,000 ppm will begin to apply in this designated ECA starting in August 2012; this is reduced to 1,000 ppm beginning January 1, 2015.<sup>7</sup>

Our 2010 Category 3 marine rulemaking finalized regulations implementing the MARPOL Annex VI and North American ECA requirements for U.S. vessels under the CAA and for U.S. and foreign vessels under APPS. That rule also adopted regulatory text to clarify that vessels operating in U.S. internal waters,

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<sup>6</sup> MEPC.1/Circ.723, 13 May 2010. Information on North American Emission Control Area (ECA) Under MARPOL Annex VI. A copy of this document can be found at <http://www.epa.gov/otaq/regs/nonroad/marine/ci/mepc1-circ-re-na-eca.pdf>

shoreward of an ECA, that can be accessed by ocean-going vessels must meet the MARPOL Annex VI ECA requirements. This includes ports and internal waters such as the Great Lakes. In the regulatory text we refer to the internal waters in which we are applying the ECA requirements as the “ECA associated area.” The regulatory text applies the ECA requirements for these internal waters beginning at the same time as the ECA takes effect under MARPOL Annex VI.

We received many comments from Great Lakes stakeholders during our Category 3 rulemaking process about the application of the ECA standards to the Great Lakes. Steamship owners raised technical and safety issues associated with operating Great Lakes steamships on distillate fuel, since these steamships were designed specifically to operate on residual fuel oils. In response to these comments, we considered a number of options to address the safety concerns for these vessels. However, Congress placed a prohibition on EPA's use of funds to issue a final rule that included fuel sulfur standards applicable to existing steamships that operate exclusively in the Great Lakes. Therefore, under our APPS section 1903 authority to “prescribe any necessary or desired regulations to carry out the provisions” of MARPOL Annex VI, our final regulations exclude Great Lakes steamships from the final fuel sulfur requirements (40 CFR 1043.95(a)). This means that steamships can continue to use high sulfur residual fuel indefinitely.<sup>8</sup>

At the same time, however, we recognized that the steamship fuel sulfur

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<sup>7</sup> See <http://www.epa.gov/otaq/fuels/dieselfuels/documents/420b11002.pdf> for a summary of the EPA and MARPOL Annex VI fuel sulfur limits and their effective dates.

<sup>8</sup> Steamships operated in the coastal areas of the North American ECA are exempt from the fuel sulfur requirements through December 31, 2019, by amendment to MARPOL Annex VI. See MEPC 62/24, Annex 14, page 4 (July 26,

exemption, combined with the application of ECA fuel sulfur requirements to diesel ships operating on the Great Lakes, would reduce the incentives for steamship owners to repower their ships. This is because once the steamship is repowered with diesel engines it would no longer be exempt from the fuel sulfur requirements. In addition, the higher price of fuel that is compliant with ECA and global fuel requirements would make it harder to recover the costs of the repower project through fuel savings from the more fuel efficient diesel engines.

As a result, we added a provision to our economic hardship waiver program that would allow EPA to consider “the ability of an individual vessel to recover capital investments incurred to repower or otherwise modify a vessel to reduce air emissions” (40 CFR 1043.95(b)(4)(iv)). Using this provision, EPA intended that steamship owners who voluntarily repower their steamships with diesel engines could apply for an economic hardship waiver that would allow the ship to use lower-price residual fuel in the repowered diesel engine for a specified period of time, which can help offset the capital costs of a repower project.

Since EPA finalized the Category 3 marine rule, we recognized that the goal of encouraging voluntary Great Lakes steamship repowers can be achieved more effectively by providing an automatic fuel sulfur waiver for a defined period of time for Great Lakes steamships that are repowered with a Tier 2 or better diesel engine.<sup>9</sup>

A waiver is appropriate and reasonable due to the significant emissions and

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2011). These ships are expected to be retired from service as of that date as a result of hull corrosion from operating in salt water.

<sup>9</sup> In certain cases EPA may approve the use of an engine that meets a less stringent tier of standards, if the owner can demonstrate that the engine was purchased for a steamship repower prior to October 30, 2009 and it meets the criteria

energy benefits from repowering a steamship with a diesel engine, both immediately and in the long run. A diesel engine is 30 to 50 percent more fuel-efficient than a steam power plant, due to better combustion technology. In a typical steamship, replacing the steam power plant with a diesel engine will immediately reduce SOx emissions by about 34 percent; PM emissions would be about the same for both engines when operating on high sulfur residual fuel. In the long term, beginning January 1, 2026 when the replacement diesel engines will be required to use fuel that complies with the 1,000 ppm sulfur limit on the Great Lakes, the estimated emission reductions will be even more significant: about 97 percent reduction in SOx and about 84 percent reduction in PM emissions compared to the steam engine. These SOx and PM emission reductions are extraordinary, especially given that Great Lakes steamships, repowered or not, will have many years of service life remaining even after the expiration of the fuel sulfur waiver. Steam engines have inherently low NOx emissions due to their inefficient combustion process, and replacing a steam engine with a diesel engine may result in several times more NOx emissions. However, the diesel marine engines that would replace the steam engine have NOx emissions comparable to diesel engines used in other marine and land-based applications, and would be required to meet at least EPA's Tier 2 standards. In addition, the health and human welfare benefits of reducing PM and SOx emissions overwhelm the impacts of the NOx emission increase of the repowered engine compared to the original steam engine. Therefore, the impacts of repowering Great Lakes steamships are expected to be significantly beneficial.



An automatic waiver is appropriate because it will give owners greater flexibility with regard to how and when they repower. A ship repower is a lengthy process that requires significant redesign of the ship engine room and propulsion system. Also, the scheduling of dry dock time must be timed with the order and delivery of the replacement engine and other important ship components. An automatic waiver will avoid an additional review and approval phase for a repower project. It also may facilitate financing as the waiver is available for any qualifying steamship repower.

Consistent with our existing steamship fuel sulfur waiver (40 CFR 1043.95(a)), this steamship incentive program fuel waiver is available only to steamships that were operating exclusively on the Great Lakes and that were in service on October 30, 2009<sup>10</sup> and therefore are otherwise exempt from the requirements of Part 1043. In addition, the steam engine must be replaced with an engine that meets the EPA standards in effect at the time the ship will enter dry dock (i.e., it is covered by an EPA-issued certificate of conformity).

To qualify for this steamship repower waiver, the vessel must remain intact in that the cargo section of the vessel must remain connected to the section that contains the pilothouse. This means that if a steamship is converted to a barge and is subsequently paired, either permanently or sporadically, with a tug, the tug will not qualify for this fuel sulfur waiver. Removal of the engine section of the vessel and replacing it with a tug is more consistent with replacing the existing vessel rather than repowering it. In addition, the replacement tug would likely be powered by a Category 2 engine that does not use residual fuel, due to the space

restrictions on tugs and the requirements for fuel handling equipment to use residual fuel, and therefore a residual fuel waiver would be irrelevant.

The waiver is valid through December 31, 2025. Beginning January 1, 2026, the owner will be required to use ECA-compliant fuel in the repowered diesel engine. This limited waiver period is intended to encourage steamship owners to repower early to take full advantage of the amount of time they can use lower price residual fuel. This, in turn, will maximize the human health and environmental benefits of the steamship repower waiver.

A steamship owner taking advantage of the automatic steamship repower incentive program is required to notify EPA's designated certification officer of the intention to use this provision. The notification must include a description of the project, the expected timeline, and other relevant information. The owner is also required to notify EPA's designated certification officer at completion of the project. At that time, EPA will provide the owner with a statement that the repowered ship is covered by the steamship repower incentive program fuel sulfur waiver. This document should be kept with the ship's International Air Pollution Prevention (IAPP) and Engine International Air Pollution Prevention (EIAPP) certificates, for compliance purposes.

The owner of the repowered steamship is required to comply with all other aspects of EPA's marine diesel engine program, including the MARPOL Annex VI requirements with respect to bunker delivery notes.

EPA has determined that no changes are needed to our 40 CFR part 80 fuels program to effectuate the fuel sulfur waiver for repowered steamships. This

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<sup>10</sup> "In service" means operating as a steamship, but is not limited to actually performing that service on that day.

is because the prohibitions contained in 40 CFR 80.610 specify that “no person shall ... (6) beginning January 1, 2015, introduce (or permit the introduction of) any fuel with a sulfur content greater than 1,000 ppm for use in a Category 3 marine vessel within an ECA, except as allowed by 40 CFR part 1043,” and the steamship repower incentive program regulations will be part of 40 CFR 1043.95. In addition, ECA fuel is defined in 40 CFR 80.2(ttt)(2)(i) as excluding “fuel that is allowed by 40 CFR part 1043 to exceed the fuel sulfur limits for operation in an ECA (such as fuel used by excluded vessels... ).”

#### D. Regulatory Action

Under the authority of 33 U.S.C. 1903 to “prescribe any necessary or desired regulations to carry out the provisions” of MARPOL Annex VI, EPA is taking direct final action to add an automatic fuel sulfur waiver to our marine diesel program for repowered steamships operating on the Great Lakes. This automatic fuel waiver is available only to owners of steamships that operate exclusively on the Great Lakes and that were in service on October 30, 2009, where “in service” means operating as a steamship, but is not limited to actually performing that service on that day. This waiver will allow the converted steamship to use non-compliant residual fuel in the repowered diesel engine through December 31, 2025.

This action will not have an adverse cost impact on steamship owners. Steamship owners are not required to replace the steam engines on their vessels

with diesel engines. This direct final rule merely adds a provision to allow steamship owners who voluntarily repower with diesel engines to automatically continue to use the fuel they would otherwise be permitted to use had the ship not been repowered, for a period of time. This provision will provide important air quality and energy benefits immediately, due to the improved fuel efficiency of the diesel engines, and even larger benefits beginning in 2026, when the repowered ship will use fuel that complies with the 1,000 ppm sulfur limit on the Great Lakes.

## **V. Statutory and Executive Order Reviews**

### **A. Executive Order 12866: Regulatory Planning and Review**

This action is not a "significant regulatory action" under the terms of Executive Order 12866 (58 FR 51735, October 4, 1993) and is therefore not subject to review under Executive Orders 12866 and 13563 (76 FR 3821, January 21, 2011). This direct final rule merely adds an automatic waiver provision to encourage Great Lakes steamship owners to repower their vessels with cleaner marine diesel engines. There are no costs associated with this rule because steamship owners are not required to repower their ships.

### **B. Paperwork Reduction Act**

The information collection requirements in this rule will be submitted for

approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. The information collection requirements are not enforceable until OMB approves them.

The program contained in this rule is a voluntary incentive program to encourage owners of Great Lakes steamship to repower their ships with diesel engines. A steamship owner taking advantage of the automatic fuel waiver is required to notify EPA's designated certification officer of the intention to use this provision. The notification must include a description of the project, the expected timeline, and other relevant information. The owner is also required to notify EPA's designated certification officer at completion of the project. The purpose of the reporting is to ensure that a repower has taken place, with a qualified EPA-certified engine. Because this program is voluntary, a steamship owner would provide this information only if the provision is exercised. When the project is completed, EPA will provide the owner with a statement that the repowered ship is covered by the steamship repower incentive program fuel sulfur waiver, which is to be kept onboard for compliance purposes.

There are potentially six companies affected, which own the twelve remaining diesel steamships that operate on the Great Lakes. It is not known how many of these companies will actually take advantage of the waiver, or when they would repower. However, it is likely that the repowers would occur prior to 2015, to maximize the fuel savings afforded by the fuel sulfur waiver before it expires on December 31, 2025.

The total estimated burden associated with the automatic steamship

repower incentive program is 14.0 hours annually. This is based on two steamship owners repowering two steamships in each of three years and an estimated 3.5 annual labor hours for each manufacturer to prepare and submit the required information for each ship. Burden is defined at 5 CFR 1320.3(b).

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in 40 CFR are listed in 40 CFR part 9. When this ICR is approved by OMB, the Agency will publish a technical amendment to 40 CFR part 9 in the Federal Register to display the OMB control number for the approved information collection requirements contained in this final rule.

### C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) a small business primarily engaged in shipbuilding

and repairing as defined by NAICS code 336611 with 1,000 or fewer employees (based on Small Business Administration size standards); (2) a small business that is primarily engaged in freight or passenger transportation on the Great Lakes as defined by NAICS codes 483113 and 483114 with 500 or fewer employees (based on Small Business Administration size standards); (3) a small business primarily engaged in commercial and industrial machinery and equipment repair and maintenance with annual receipts less than \$7 million (based on Small Business Administration size standards); (4) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (5) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of today's final rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities.

In determining whether a rule has a significant economic impact on a substantial number of small entities, the impact of concern is any significant adverse economic impact on small entities, since the primary purpose of the regulatory flexibility analyses is to identify and address regulatory alternatives "which minimize any significant economic impact of the rule on small entities." 5 U.S.C. 603 and 604. Thus, an agency may certify that a rule will not have a

significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, or otherwise has a positive economic effect on all of the small entities subject to the rule.

This direct final rule merely adds an automatic waiver provision to encourage Great Lakes steamship owners to repower their vessels with cleaner marine diesel engines. There are no costs and therefore no regulatory burden associated with this rule because steamship owners are not required to repower their ships and can continue using their vessels indefinitely. This Great Lakes steamship repower incentive program will assist those steamship owners who choose to voluntarily repower their ships, however, by allowing them to use lower-price residual fuel in the repowered diesel ship for a specified period of time, which may help them cover the costs of the repower project. We have therefore concluded that today's final rule will not increase regulatory burden for affected small entities.

#### D. Unfunded Mandates Reform Act

This action contains no Federal mandates under the provisions of Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), 2 U.S.C. 1531-1538 for State, local, or tribal governments or the private sector. The action imposes no enforceable duty on any State, local or tribal governments or the private sector. Therefore, this action is not subject to the requirements of sections 202 or 205 of the UMRA.



This action is also not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. This direct final rule merely adds an automatic waiver provision to encourage Great Lakes steamship owners to repower their vessels with cleaner marine diesel engines. None of the thirteen U.S. steamships operating on the Great Lakes as of October 30, 2009, are owned or operated by a State, local, or tribal government.

#### E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. This direct final rule merely adds an automatic waiver provision to encourage Great Lakes steamship owners to repower their vessels with cleaner marine diesel engines. None of the thirteen U.S. steamships operating on the Great Lakes as of October 30, 2009, are owned or operated by a State. Thus, Executive Order 13132 does not apply to this action.

#### F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This action does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). This direct final rule merely adds an automatic waiver provision to encourage Great Lakes steamship owners to repower their vessels with cleaner marine diesel engines. None of the thirteen U.S. steamships operating on the Great Lakes as of October 30, 2009, are owned or operated by an Indian tribal government. Thus, Executive Order 13175 does not apply to this action.

#### G. Executive Order 13045: Protection of Children from Environmental Health and Safety Risks

This action is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997) because it is not economically significant as defined in Executive Order 12866, and because the Agency does not believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. This direct final rule merely adds an automatic waiver provision to encourage Great Lakes steamship owners to repower their vessels with cleaner marine diesel engines. To the extent Great Lakes steamship owners take advantage of this incentive program, their action will provide immediate air quality and energy benefits, due to the improved fuel efficiency of the diesel engines, and even larger benefits in the long term, when the repowered ship will use fuel that complies with the 1,000 ppm sulfur limit on the Great Lakes. These emission reductions will improve air quality for all people who live in the Great Lakes region, including

children and other sensitive populations.

#### H. Executive Order 13211: Actions that Significantly Affect Energy Supply, Distribution, or Use

This action is not subject to Executive Order 13211 (66 FR 28355, May 22, 2001), because it is not a significant regulatory action under Executive Order 12866.

#### I. National Technology Transfer Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (“NTTAA”), Public Law No. 104-113, 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This action does not involved technical standards. Therefore, EPA did not consider the use of any voluntary consensus standards.

J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898 (59 FR 7629, Feb. 16, 1994) establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

EPA has determined that this final rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it increases the level of environmental protection for all affected populations without having any disproportionately high and adverse human health or environmental effects on any population, including any minority or low-income population. This direct final rule merely adds an automatic waiver provision to encourage Great Lakes steamship owners to repower their vessels with cleaner marine diesel engines. To the extent Great Lakes steamship owners take advantage of this incentive program, their action will provide immediate air quality and energy benefits, due to the improved fuel efficiency of the diesel engines, and even larger benefits in the long term, when the repowered ship will use fuel that complies with the 1,000 ppm sulfur limit on the Great Lakes. These

emission reductions will improve air quality for all people who live in the Great Lakes region, including minority and low-income populations.

#### K. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 et seq., as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the Federal Register. A Major rule cannot take effect until 60 days after it is published in the Federal Register. This action is not a “major rule” as defined by 5 U.S.C. 804(2). This rule will be effective on **[Insert date 60 days after publication in the Federal Register]**

#### L. Statutory Authority

The statutory authority for this action comes from section 1903 of the Act to Prevent Pollution from Ships (33 U.S.C. 1901 et seq.). The Act to Prevent Pollution from Ships implements Annex VI to the International Convention for the Prevention of Pollution from Ships (MARPOL) and makes those requirements

enforceable domestically. Section 1903 gives the Administrator the authority to prescribe any necessary or desired regulations to carry out the provisions of Regulations 12 through 19 of MARPOL Annex VI.

### **List of Subjects in 40 CFR Part 1043**

Environmental protection, Administrative practice and procedure, Air pollution control, Confidential business information, Economic hardship waiver, Great Lakes, North American Emission Control Area, Reporting and recordkeeping requirements, Steamships.

Dated: January 11, 2012

Lisa P. Jackson

Administrator

For the reasons set out in the preamble, Title 40, Chapter I of the Code of Federal Regulations is amended as follows:

### **PART 1043—CONTROL OF NO<sub>x</sub>, SO<sub>x</sub>, AND PM EMISSIONS FROM MARINE ENGINES AND VESSELS SUBJECT TO THE MARPOL PROTOCOL**

1. The authority citation for part 1043 continues to read as follows:

Authority: 33 U.S.C. 1901–1915.

2. Section 1043.95 is amended by redesignating paragraphs (b) and (c) as paragraphs (c) and (d), respectively, and adding a new paragraph (b) to read as follows:

**§ 1043.95 Interim provisions.**

\* \* \* \* \*

(b) The fuel-use requirements of this part do not apply through December 31, 2025, for a ship qualifying under paragraph (a) of this section if it was in service as a steamship on October 30, 2009 and it is repowered with one or more marine diesel engines, subject to the following conditions and requirements:

(1) Engines must meet exhaust emission standards using one of the following approaches:

(i) All the installed replacement engines must be certified to applicable standards under 40 CFR part 1042 based on the date the vessel enters dry dock for service.

(ii) We may approve the use of an engine meeting less stringent standards if the owner can demonstrate that it took possession of the engine before October 30, 2009, and that engine is a new engine that has not been installed in a non-marine application. Such an engine must at a minimum be certified to the Annex VI NO<sub>x</sub> emission standard in §1043.60 that applies based on its build date.

(2) The vessel owner must notify us regarding the intent to use this provision. The notification must include a description of the vessel and a summary of the project, including the expected timeline, and other relevant information.

(3) The vessel owner must notify the Designated Certification Officer when the project is complete. We will send the owner a statement that the repowered ship is exempt from fuel sulfur requirements through December 31, 2025; this statement must be kept onboard the vessel for compliance purposes.

(4) All other requirements under this part 1043 continue to apply, including requirements related to bunker delivery notes.

(5) This paragraph (b) applies only for vessels whose hull remains intact through the repowering process. For example, if a steamship is converted to a barge for use with tugboats, those vessels must use fuel meeting the requirements of this part 1043.

\* \* \* \* \*

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